Patent Claims

1. A digital photography method whereby a matrix (1) of optoelectric sensor elements is shifted at least once relative to the imaging beam of the camera and whereby there is stored a first image (B_{1e}) in the position before the shift ($\bar{S}$) and a second image (B_{2e}) in the position after the shift, each in the form of electric image signals as a function of the sensor output signals and having the respective sensor position information, characterized in that signals depending on the image signals of both images (B_{1e}, B_{2e}) are forwarded to a comparison operation (9) and whereby a comparison-result image (Δ) is in turn produced in the form of electric comparison-result signals together with the position information, whereby the first and/or the second image is modified by means of electric signals of the comparison-result image (Δ) for the creation of a photograph (B_{1K}).

2. A method according to claim 1, whereby the first and/or the second image (B_{1e}, B_{2e}) is prepared from more than one partial image (I-IV) created by additional shifts of the matrix (1) corresponding to their local distribution of color-selective sensor elements.

3. A method according to one of the claims 1 or 2, whereby electric image signals of the two images (B_{1e}, B_{2e}) are compared with one another, whereby sensor elements are identified as impurity-containing (Z), and whereby output signals provide a comparison result in the comparison-result image (Δ) indicating a match in at least a predetermined measure.

4. A method according to one of the claims 1 or 2, whereby the first image (B_{1e}) and or the second image (B_{2e}) is shifted by calculation and whereby the position information assigned to the electric image signals is altered so that at least on electronic phantom image is created as one of the images to make a comparison with.

5. A method according to one of the claims 1, 3, or 4, whereby at least the first or second image (B_{2e}) is shifted by calculation (14) to the position of the other image (B_{1e}) and whereby the position information is altered relative to the shift ($\bar{S}$) between the matrix

positions so that at least one phantom image (B_{Ph1}) of the other image (B_{1e}) is created, and whereby comparison is performed between the phantom image (B_{Ph1}) and the other image (B_{1e}).

6. A method according to claim 5, whereby for the production of the image (B_{K1}) electric signals are substituted on the first image (B_{1e}), the second image (B_{2e}), and the phantom image (B_{Ph1}), which assigned sensor elements have positions (x_z, y_z; x'_z, y'_z) at which comparison-result signals lie above a preset threshold value within the comparison-result image (Δ).

7. A method according to claim 6, whereby the substitution is performed by electric signals (A (x_z/y_z)) of one of the other images, actually originating from the sensor elements, which positions correspond to the position information at which the comparison-result signals lie above the preset threshold value within the comparison-result image (Δ).

8. A method according to one of the claims 1 through 7, whereby it is concluded that impurities (Z) on the matrix are (coming) from the comparison-result image (Δ) and/or via the displaced image areas (ρ) in the imaging beam.

9. A method according to the introductory clause of claim 1, whereby one conducts a shift by calculation of at least one of the recorded images aside of the mechanical shift ($\overline{S}$) of the matrix and whereby one evaluates the different reproduction behaviors during the mechanical matrix shift and the electronic image shift for interpretation of the reproduction.

10. A digital camera having an optical system that forms an imaging beam and having a matrix (1) of optoelectric sensor elements which may be shifted relative to said imaging beam of the camera, characterized in that the electric output (A_1) of the matrix (1) is operationally connected to the inputs of at least two image memory units (7_1, 7_2), whereby their outputs (A_{71}, A_{72}) are operationally connected to the inputs (E_{91}, E_{92}) of a

comparison unit (9), and whereby the output of said comparison unit (9) leads in turn to an input of a computing unit (12).

11. A digital camera according to claim 10, wherein the outputs of the image memory units (7_1, 7_2) are operationally connected to the inputs (E_{91}, E_{92}) of the comparison unit (9).

12. A digital camera according to claim 10, wherein said matrix (1) is operationally connected to a controllable drive arrangement (7_2), wherein the output of the one image memory unit (7_2) leads via a computing unit (14) to the input of an additional image memory unit (7_{Ph}) whereby an additional input of said computing unit (14) is operationally connected to a shift receiver on said matrix (1) and/or the drive (3), and whereby the output of said additional image memory unit (7_{Ph}) is operationally connected to the input (E_{92}) of the comparison unit (9).

13. A digital camera according to claim 12, wherein an output of the comparison unit is operationally connected to a read-out selection input (E (x_n, y_n)) which output (A_{Ph}) is operationally connected to the input on the computing unit (R).

14. A digital camera according to the introductory clause of claim 10, characterized in that said camera has a computing unit (14) which shifts (B_{Ph}) and electronically stored image (B_{2e}) by computation and which computing unit compares said shifted image (B_{Ph}) to an image (B_{1e}) recorded by said matrix (1).